



E-GOVERNANCE AT SECONDARY LEVEL EDUCATION IN WEST BENGAL

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ABSTRACT

Education is one of the most important factors in achieving the developmental goals of our nation. Advancement in the educational sector had made the administration of educational institution complex. E-governance helps to reduce the complicity and enhance the overall administration. The main aims of E-governance is to enable the government agencies to improve the relationship between the citizens and government by the use of modern Information and Communication Technology (ICT). E-governance also plays important role in the educational sector. E-governance in education provides new ways of communicating with the students, new ways of imparting education and new ways of organizing and delivering information and service. The implementation of ICT may increase broad participation of the students in the process of achieving good educational goal at all levels by providing the possibility online discussion groups and by enhancing the rapid development and effectiveness of learning method. Educational institute may have various requirements that include computerization and management of process such as registration, admission, student information, classes, time table, transport, attendance, library, salary, examination, performance, grades. In this study an attempt has been made to analyze the various Government records and trace the present situation of e-governance in the field of secondary education of West Bengal,

KEYWORDS: E-Governance, Secondary level Education.

1. INTRODUCTION:

E-governance, meaning electronic governance' is using information & communication technologies (ICT) at various levels of government and the public sector .UNESCO defines e-governances as: "E-governance is the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision making process and making government more accountable, transparent and effective"

The main aims of e-governance is to enable the government agencies to improve the relation with citizen and businesses by the use of a ICT like wide area network, mobile, computing devices and the internet. It facilitates better communication between various arms of governments. It facilitates improved access to government services and allows greater public access to information. E-governance plays a important roles in the education sector The researcher have taken the area of secondary education as it is preparation stage of higher education. If we want to implement higher education successfully we have to create awareness of e-governance in the secondary stage. E-governance in secondary education provides new ways of communicating with the students, new ways of imparting education and new ways of organizing and delivering information and service. The implementation of ICT may increase broad participation of the students in the process of achieving good educational goal at all levels by providing the possibility online discussion groups and by enhancing the rapid development and effectiveness of learning method. Educational institute may have various requirements that include computerization and management of process such as registration, admission, student information, classes, time table, transport, attendance, library, salary, examination, performance, grades. That can easily done through e-governance. Now a day E-governance occupies the topmost position in the development agenda of almost all governments in the world and lot of money is being pumped to various e-Governance initiatives. Therefore very intelligent planning is required to produce desired results. Secondary education is one of the important stage of our educational system. In the present work focused on the e-governance scenario of secondary education of West Bengal.

Component of e-governance;

E-governance services can be shared between citizens, businessman, government and employees. These four components of e-governance are as:-

1. Government to citizens (G2C)
2. Government to government (G2G)
3. Government to employees (G2E)
4. Government to businessman (G2B)

Government to citizens (G2C):-This component of e-governance refers to the government services which are shared by citizens. Here, citizens visit to the link of services that they want to use. This component strong the bond between government and its citizen & provide following types of services.

- Online admission of applications.
- Online filling of complaints.
- Availability of any kind of online information.

Government to government (G2G):- This component refers to the services which are shared between the governments. There is lots of information that need to be shared between various government agencies, department and organizations. These types of services or information are as:-

- Sharing of information between different Educational organization.
- Government document exchange which includes preparation, approval, distribution, and storage of all governmental documents is also done through e-governance.
- Most of the finance and budget work are also done through e-governance.

Government to businessmen (G2B):-The relationship between private sector and government increase and businessmen use to communicate through the component. Types of information can be possible to share

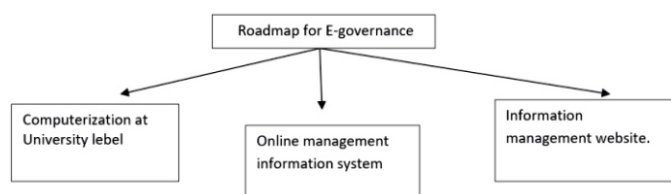
- Rejection and approval of different educational institution is also done by this component.
- Sharing of all kind of information, rules and data.
- Complaints or any kind of dissatisfaction can be shown by this.

Government to employees (G2E):- This component increases the transparency between government and its employee. Here, employee can keeps a check on the functioning and working of government and government can keeps on its employees. Information that can be shared by this component.

- All kind of data submission (attendance record, employee record etc) from various government offices is done by this model
- Employee can file all kinds of complaints and dissatisfaction by this model.
- All kind of rule- regulation and information for employees can be shared by this.
- Employees can check their payment and working record.

2. REVIEW OF RELATED LITERATURE.

Bhanti et al.(2012) discussed needs of e-governance in higher education system. In this paper according researcher The proposed e-governance framework aims to provide an integrated approach to the higher education by leveraging ICT, for the development of higher education in the country. The researcher discussed the road map of e-governance.



Suklabaidya and Sen (2013) studied the challenges and prospect of e-governance in education. In this paper researcher discussed NeGP, National e-governance plan which is the flagship e-governance program of central government, was approved by government of India in may 2006 comprising with 27 Mission Mode Project (MMPs).

Alhomod and Safi (2013) studied the impact of e-governance in education sector. In this paper author also focused on a framework for measuring the success of any e-governance with respect to education. For this measurement there are four component, these are Quality of web portal, availability of skilled ICT professional, Quality of technological infrastructure & organisational policy.

Kumar et al. (2014) defined e-governance as; use of ICT in government in ways that either alters governance structures or processes in ways that are not feasible without ICT and/or create new governance structures or processes that were heretofore not possible without ICT and/or reify heretofore theoretical ideas or issues in normative governance. The author also give emphasis on major impediments and challenges in successful implementation of e-governance in India. According to the report inadequate planning, leadership failures, deficiency in finances, lack of motivation and awareness, dearth of citizen centric nature of applications, poor cooperation among bureaucrats and people at local level, lack of trust, miserable technical design which endures lack of interoperability among distinct e-governance applications and underutilization of ICT infrastructure resources are the major obstacles in successful implementation of e-governance in India.

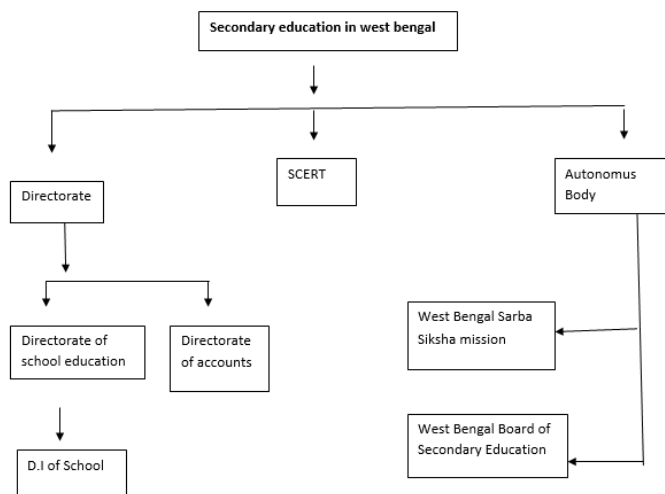
Sachidanada (2009) discuss the impact of E-governance in education sector. According to author the quantity and quality of output from education system has been substantially improved with the introduction of e-governance in this sphere. However in order to be really effective, the e-governance system deployed needs to go beyond mere computerization of records or processes. The implementation of the e-governance has been able to provide the management of the educational institution information about the areas of concern so that adequate action can be taken. An integrated e-governance system can enable the authorities to analyze the performance of one of the best performing institute in related field and compare it with other colleges to identify the gap areas. This will allow all the lesser performing colleges to reduce the gap with better performing institutes. It will be help in the betterment of the higher education in the country and increase the number of employable students.

3. OBJECTIVES:

1. To provide an overview of e-governance.
2. To map e-governance initiatives in the field of secondary level education in west Bengal
3. To find the challenges in applying e-governance in secondary level education.

4. RESEARCH METHODOLOGY:

The present paper describes various sections according to the above mentioned objectives. The study covers the area of secondary education. The organizational structure of Secondary school education is given below:



The data is collected from some officer of Department of School Education of West Bengal, Bikash Bhavana and West Bengal State Council of Educational Research and Training. Who maintain all the work related to this concern and some school teachers and head master through interview. To enrich the study secondary sources of data are collected from the published book, article and journal and government website.

5. RESULT AND DISCUSSION:

Union Government has approved the National e-Governance Plan (NeGP), comprising of 27 Mission Mode Projects (MMPs) and 8 components on May 18, 2006 to give a boost to e-Governance initiatives in India. Department of Information Technology (DIT) and Department of Administrative Reforms and Public Grievances (DAR&PG) has formulated the National e-Governance Plan (NeGP). In the year 2011 four project health, education, PDS, & post were introduced to make the list of 27 MMP to 31 MMPs. Education is a Concurrent Subject under Constitution of India and involves an ecosystem that comprises many activities of other Ministries and Departments both at the Centre and in the States. Administration of mid-day meals, administration of hostels, disbursement of scholarships, etc are a few examples of activities that require coordination with other agencies of the government. Several flagship schemes of the Government of India – Sarva Shiksha Abhiyan, Mid-Day Meal, Rashtriya Madhyamik Shiksha Abhiyan, etc require ICT for their implementation and monitoring.

MHRD is working on a National Policy on ICT in School Education to provide guidelines to assist the States in optimising the use of ICT in school education.

Department of School Education and Literacy of the Ministry of Human Resource Development (MHRD) has been made the nodal Department for the design and implementation of this MMP.

Keeping in view the federal nature of its implementation, the MMP would be designed on the principle of centralised planning and decentralised implementation.

Source: (<http://india.gov.in/e-governance/mission-mode-projects/state-mmps>)

Government initiative in field of Secondary level Education in West Bengal:

1. ICT at school:

ICT at school scheme is a centrally sponsored scheme being implemented by different state government in India. It is launched in december 2004 and revised in 2010. It has been a very important step in aligning ICT in education. This scheme is currently being implemented in government schools as well as government-aided secondary and higher secondary schools.

In the year 2007–08, the government of West Bengal started implementing this scheme by introducing computer education in 543 government-aided higher secondary schools benefiting 35751 students with 286 full time teacher recruited through school service commission. In the following year, an additional 2,498 schools were brought under the scheme. In the same year, under the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), a central government scheme for universalizing secondary education, West Bengal and five other states were selected to implement ICTs in schools. 1,400 schools in West Bengal were each provided with 10 computers, 10 UPSs, 1 scanner, 1 web camera. (Survey of ICTs for Education in India and South Asia, Case Studies, 2010). At present 3948 schools are covered under the scheme.

Features:

Expansion of coverage of schools: It shall be the endeavor to bring all Government and Government aided secondary and higher secondary schools under the ambit of the scheme, subject to the availability of budgetary provision. Priority would be given to educationally backward blocks and areas with concentration of SC, ST, minority and weaker sections.

Infrastructure Hardware and software: Each school would be provided with 10 PCs or 10 nodes connected through a server. Accessories like printers, projection system etc will also be provided. Keyboards would be customized for use in the regional languages.

Connectivity: The first priority would be to have a broadband internet connection of at least 2 MBPS bandwidth in each school. Wherever that is not possible, connection of lower bandwidth would be provided with plan to upgrade in future. Wireless links would also be explored. Power Supply: Wherever the power supply is unreliable, it is proposed to provide assistance for purchase of a generator, as a back up only and also its recurring cost, subject to a maximum of Rs. 1000 per month, in addition to Rs 1000 per month for the electricity charges. In areas where there is no power supply, solar generated power should be made use of.

Computer Room/Lab:- The computers would be installed in one of the safe rooms in the school. If such rooms are not available, the need can be met from the scheme Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in case of Government schools. (Hazra, 2013)

2. OSMS (online salary management systems):

OSMS is a process of online salary management system. In the Department of secondary education OSMS started on October 2014. It is online salary giving process Through COSA (computerized online salary account) for the teaching and non-teaching staffs of the schools. It is a fully automates salary system. It is capable of calculating monthly salary & tax of employees. It will generates files as an output such as bank file, salary slips. This module can encompass all employee-related transactions as well as integrate with existing financial management systems.

3. Online Result Publication:

Online result publication of Secondary and Higher secondary Board examination is done by West Bengal Board of Secondary Education and West Bengal Council of Higher Secondary Education through the website <http://wbresults.nic.in/madhyamik/wbnpres.htm>.

Source: <http://www.wbbse.org/>

4. E- books and E- syllabus:

E-books and E syllabus are also available at the website of directorate of school education. Teacher or student anyone can collect from the website www.wbse.gov.in

5. Online students related works::

- Generation of unique ID/Profile for different WB government project like Kanyashree, Shikshashree is done through online.
- Online record maintaing done through online for different incentive schemes,
- Online form fillup for different scholarship is possible through online.

6. U-DISE(Unified District Information Systems for Education):

The first version (dbase) of the software, named as 'District Information System for Education' (DISE) was released by NIEPA during the middle of 1995. The first major review of the DISE software was undertaken during 1997- 98 . The software was later redesigned in 2001 in the light of requirements of the Sarva Siksha Aviyon . In west Bengal it this project started on 1998-1999. It collect information from class I to class XI. So it is called unified.

Features: The system has following features:

- Details of Schools by Type of Boundary Wall,
- Details of Schools by Source of Drinking Water
- Details of Furniture for Teachers and Students and Availability of Kitchen Shed in the School
- Enrolment by Minority
- Distribution of Children by Multiple Disabilities
- Examination Results of SC and ST Students etc.
- Efforts are being made to develop DISE as complete user friendly menu-driven software. Some of the features that are being incorporated in the modified software are:
- To improve the consistency of data, efforts are being made to highlight schools that reported inconsistent data;
- Export data to popular formats such as Excel, Text etc. will be made available

Source: <http://www.dise.in>,

7. GIS(Geographical information system)

All the schools have been marked on GIS map. Based Upon this the West Bengal school education department is in a better position to ascertained the requirement of number of school, no of classes ,required infrastructure etc rationally and accurately. Planning for requirement of school also done through GIS.

8. Orders and circulars online:

This has facilitated real time communication between different educational organizations, schools. The WBSED can and do sent the circular communication either bulk or individually to intended school or other department .There is no question of any time lag or failure to reach the destination. All orders issued online and meant for public are also available in official website of those educational department.

9. Mailing system:

West Bengal school education department has developed a web based e mailing system for its employee.

- Every department given separate e-mail id and password.

- Every employee has given a id and password.

- All the school under West Bengal School department has separate e mail id. Through it all school headmaster employee can communicate with the highest officials.

10. Website available:

Anybody can visit official website of the department of school education at the address www.wbse.gov.in

11. CAL Learning:

Computer Technology is applied as Learning Aid for the learners at Upper Primary School Level. Under Computer Aided Learning (CAL) Program, 610 schools have been provided computers with educational CDs and 1512 teachers have been oriented. The West Bengal SCERT with the West Bengal Board of Secondary Education, West Bengal Council of Higher Secondary Education, and West Bengal Board of Primary Education, has primarily been responsible for developing textbooks as per the prescribed national curriculum framework. In addition, SCERT has been working extensively to create multimedia content to help in CAL for students in the government schools across the state of West Bengal.

Developing multimedia content is a continuous process and SCERT has been involved in this activity since 2006. Extensive work were undertaken with around 100 teacher to formulate the strategy for developing content. It was realized that simply digitizing the textbooks would not be sufficient and hence the teacher were asked to be actively participate in the creation of the content, where they wrote the scripts and gave voice over simulating classroom session. This exercise is done at the district levels at the DIET labs and at the state level at SCERT headquarters. The lessons made at the district level are sent to the SCERT for verification and correction by experts and then this content is put into an interactive multimedia package by Centre for Development of Advanced Computing (CDAC), who work closely with SCERT in packaging content. Workshop have been conducted at the DIET level by SCERT to demonstrate the process of writing of scripts and recording voiceovers. The workshop have been conducted in four district . There are around 300000 teacher in the state and SCERT is in the process of training. After establishing a stable and sustainable model of content generation, SCERT has created 11 lessons for classes VI, VII, and VIII and has handed these over to Sarva Siksha Abhiyan authorities for deployment and circulation.(Survey of ICTs for Education in India and South Asia, Case Studies ,2010)

Upcoming e-government schemes for Secondary level Education of west Bengal:

Some project of e-governance are going to started .these are.

1. E-pension:

It is upcoming scheme for the employees of education department teaching and non teaching staff.

2. Shaala Darpan:

Shaala Darpan is an ICT programme of Ministry of Human Resource Development, Government of India that to provide mobile access to parents of students of Government and Government aided schools. Using Shaala Darpan parents can view updates on their child's progress. They can view records of attendance, assignments and achievements of their child. The ministry aims to launch the service by 2016 academic session.

Source: https://en.wikipedia.org/wiki/Shala_Darpan

Challenges in applying e-governance in Secondary level Education:

Education is the cornerstone of our efforts to build up the future generation. Secondary education is the most important factor for developing a nation .For improving the quality and quantity of output of the secondary education system, then there have no alternative to introducing e-Governance in this sphere. But the traditional system and norms does not allow introducing and applying e-Governance in education system. The challenges in applying e-governance in secondary education is given below.

- There is a huge gap in understanding about the fundamentals of ICT and ICT @ School scheme starting from the Government officials to teachers' level at school.
- Most of the Headmasters / Headmistresses are totally unaware about the different e-governance schemes.
- Absence of internet facilities in most of the schools is the main cause of hopelessness among the students and teachers. They cannot surf, download and demonstrate their desired materials for the students.
- Many teachers cannot give up the habits of chalk and talk (orthodox system of teaching) and are reluctant to replace the method of teaching with the new one (ICT).
- The government took a policy to give e-Governance related training to the

officials of secondary education. However, only few officials are trained. Appropriate training is not provided at the grass root level.

- Inadequacy of ICT infrastructure is a common problem in all the sector of the Government of West Bengal.
- West Bengal faces difficulties in investing large amount of money for e-Governance application Government of west Bengal has not sufficient financial arrangement for introducing technology in education sector like provide computer and internet services to all. Due to financial crisis Government of West Bengal is unable to invest large sum of money in the field of e-Governance.
- In many areas of our state there is no electrical connection. So it is impossible to provide e-Services to these areas, because e-Governance services are electronic based. So power supply is essential for this.
- E-technologies are very limited in the secondary education sector as well as other education sector institutions. On the other hand people does not sufficient knowledge about using these technologies.

6. CONCLUSION:

In this paper the researcher have tried to find out the present scenario of e-governance in secondary education. The researcher have taken the area of secondary education as it is preparation stage of higher education. For successful implementation of e-governance in higher education we have to create awareness of e-governance in the secondary level education. In the present situation we can see that West Bengal government has taken a serious initiative to implement e-governance in the field of secondary education and there are some e-government which are under process. But still now could not reach our expected level specially in the rural area the scenario is not overwhelming. Therefore it is the call of the hour to adopt preventive measure in order to conquer intended objective of e-governance in secondary education.

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